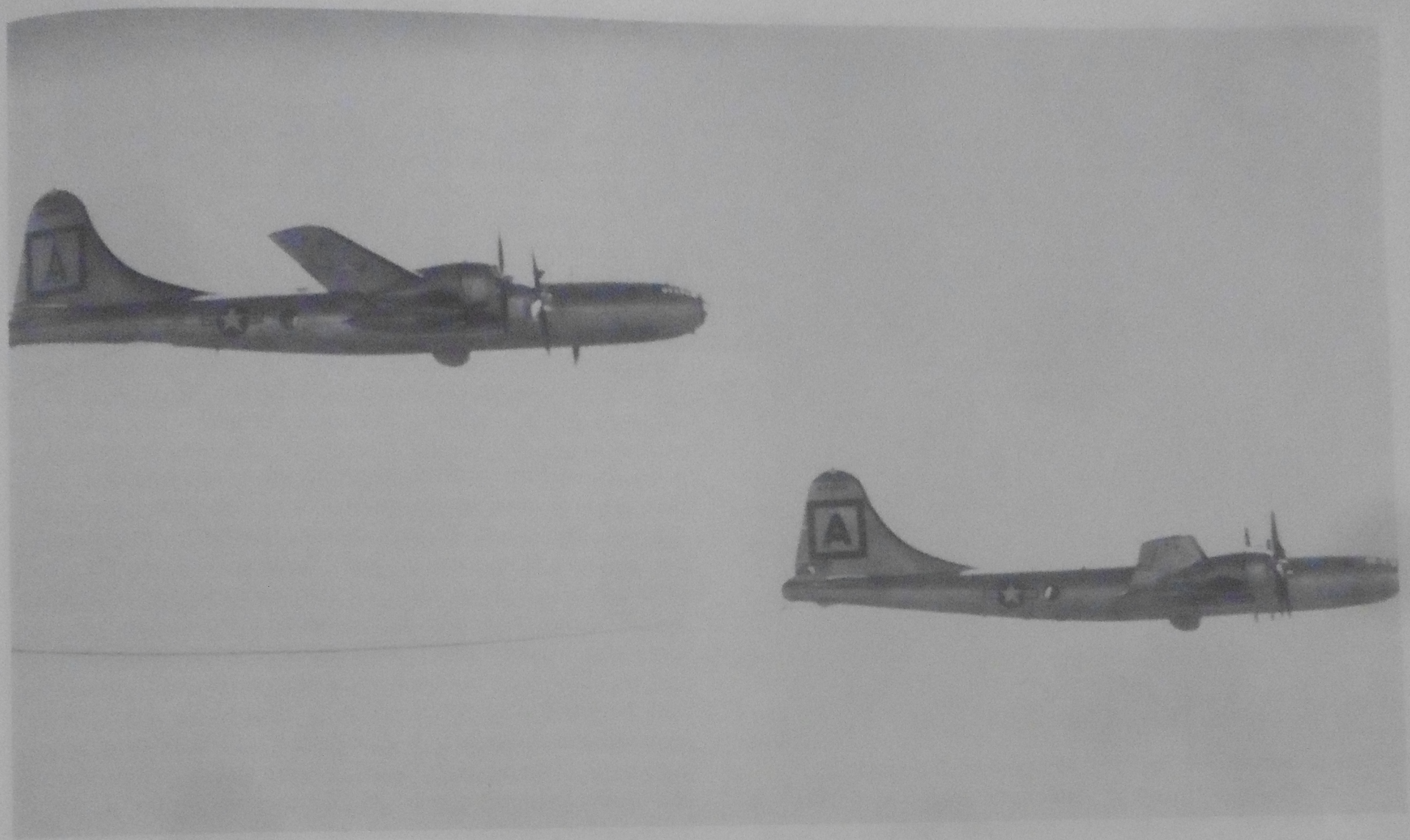


KB-29 and B-29 Refueling by Hose procedures (W. Carter)

to the right of the number four engine, thus crossing over and snagging the cable. The tanker's reel operator than hauled in both cables and attached the bomber's cable to a 200-foot long fuel hose. After the fuel hose was reeled into the bomber and connected to the fuel system, the gravity-feed fuel flow began with the tanker flying higher and to the right rear of the receiver. The hookup procedure took about fifteen minutes and the refueling another thirty-five to forty-five minutes. After fuel transfer, the procedure was reversed to retract the hose into the tanker and the bomber cable back into the bomber. The hose and grapnel system was not only slow and difficult, there were frequent equipment malfunctions. This procedure required considerable skill on the part of the tanker pilot and reel operator, and understandably, many a severed hose and weight fell to earth beneath the maneuvering aircraft.[40]

The USAF bought forty refueling equipment sets from the British in March 1948 and first demonstrated the system in December 1948. The KB-29s began arriving at the 301st in 1949, and by year's end had become functional — "operational" would be too strong a term — the fourth such unit. The tankers were organized into a new squadron, the 301st Air Refueling Squadron, which was activated in March 1949. The troops had little guidance on how to accomplish the refueling, only a one-half page "manual," so Harry Field of the refueling squadron and Pat Shinn of the 32d Bomb Squadron set up the procedures. Around 20 December the Unit's Commander, Colonel Harris Rogner, ordered that some fuel be transferred before the end of the year. The incentive was that the crews had to keep flying through the holidays until they had transferred the fuel. The two men made their first hookup on 22 December and maintained contact for thirty-five minutes. Just before Christmas, they were able to transfer five hundred to one thousand pounds of fuel. By March 1950, 301st bombers were successfully refueled on 75 percent of their attempts. The tanker unit was affectionately called the "Ape Squadron" as the KB-29s appeared to have tails when they transferred fuel. All of the tankers had nose art that featured apes as the central figures.[41]

The tankers were key in the February 1950 cold-weather deployment of the 301st to Goose Bay, Labrador. This move stemmed from SAC's desire that all of its medium-bomb units equipped for refueling rotate through Goose Bay for one week's training to acclimatize them to operations in extremely cold conditions. After an Eighth Air Force unit completed this training in January, the 301st sent five tankers, which remained the entire three weeks, as well as five bombers and crews from each bomb squadron in succession for a week each. Despite the severe cold, especially for the Louisiana-based airmen, there were no serious problems. The bomber crews flew one or two missions over northern Canada and in all, the Unit accomplished sixty-four of sixty-eight attempted refueling hookups. Of course the training included some winter survival practice, with the 353d crews spending one night out in the open. By 3 March all aircraft were back at Barksdale.[42]

Meanwhile, the crews set a high standard at SAC's Lead Crew School, which held its first two classes at Walker AFB, New Mexico, during the first half of 1950. While only twenty-six of thirty-seven SAC crews were successful, all six 301st crews passed the course. The Unit also did well in the third class after the school moved to Davis-Monthan AFB, Arizona, as four of its six crews passed. Unfortunately, the 301st could not sustain that extraordinary success rate; in the next two groups, they had only one of the thirteen successful crews, while ten of the eleven unsuccessful ones were from the Unit.[43]

Col Leslie G. Mulzer
5 Nov 47-3 Jan 49 (BG L. Mulzer)

Col Joe W. Kelly
3 Jan 49-Mar 50 (E. Eckert)

Col Harris E. Rogner
21 Jul 49-15 Dec 50 (R. Fentress)

The Wing made its first overseas deployment with the refueling squadron in May 1950, scheduled as a three-month TDY to Great Britain. An advance party departed Barksdale on 2 May 1950. The 32d Bomb Squadron, 301st Air Refueling Squadron, and Headquarters went to Lakenheath, while the 352d and 353d Bomb Squadrons went to Sculthorpe. The main body of aircraft arrived in England between 15 and 21 May, flying their first mission on the twenty-second. As usual, the majority flew via the Azores, while at least four bombers took the northern route by way of Iceland. The 301st sent 1,360 officers and enlisted men to Britain, leaving only 359 behind at Barksdale.

One plane did not make it. Around midnight on 17 May, a KB-29 with one prop feathered attempted to land at Lajes, Azores. To complicate matters, the weather was bad, with thunderstorms, 500-foot ceilings, and high winds. The pilot, First Lieutenant James Garrington, attempted to go around but lost control and crashed into the salvage yard next to the runway. All sixteen men aboard the tanker were killed in the firey crash. The loss was tragic, but not surprising given the notorious landing conditions at Lajes. The crosswinds were so stiff another 301st pilot landing that night noted that upon completing a GCA approach, the runway was at a thirty-degree angle to his direction of flight. Another 301st pilot also flying that night remarked that, because of a hump in the middle of the runway, as he broke out of the weather at four to five hundred feet off the ground, he thought he was overshooting the runway.[44]

The Korean War

Late in June 1950 the Korean War erupted and changed many things. America was again involved in a shooting war, and there were fears this might be the curtain raiser for "The Big One." World War II aircraft and veterans would see action in this undeclared war, called by some a "Police Action." The fighting also provoked a massive military buildup, including an USAF plan calling for a 126-wing Air Force.[45]

This time the 301st was on the other side of the world, far from the action. Nevertheless, the war impacted on the 301st's operations and stirred British protests against the American presence, including threats of sabotage. Initially the 301st secured all the aircraft in a tight area and patrolled it with armed mechanics serving as guards. While no one can fault the airmen for the performance of their USAF duties, the same was not true of their stints as soldiers. Instances of sentries firing their weapons made it uncomfortable for friend and foe alike. One night a hangar caught on fire, which appeared to many as saborage, but in fact it was caused by someone working on a motor scooter. Later, British troops took up the guard chore. This created some difficulties as the Americans were billeted in steam-heated dormitories while the British troops were "housed" in tents. There were some acts of sabotage, such as bayoneted tires and holes in aircraft. The British then brought in airborne troops, and after that there were no problems. The 301st honed its refueling skills during this TDY, with both aerial training and ostensibly with classes at the British school. "Ostensibly" because the American crew regarded the three or four-day British school as a boondoggle since it gave only a history of air refueling and discussed the probe and drogue method, which SAC did not accept at the time. Some believe the school was an excuse to funnel money into the British air-refueling effort, if so, it was certainly deserving in view of the British contribution to the USAF in this area.

In July the Unit was reinforced when its six remaining combat crews and eleven bombers arrived from Barksdale. Because of the shortage of qualified 301st crews, personnel from the 91st Strategic Reconnaissance Wing at Barksdale assisted in ferrying the B-29s to England. SAC sent two other bomb wings and later a fighter-escort group to Britain, crowding the bases assigned to SAC. Therefore the 301st moved its entire operation to Lakenheath, which greatly overcrowded that station's billeting, messing, and aircraft facilities. Later in the month, the 301st transferred nineteen bombers and crews to Burtonwood. In August the 301st Refueling Squadron went to Burtonwood and the 353d Bomb Squadron moved to Bassingbourn.[46]

This time the U.S. probably did send atomic weapons to Britain, although it never admitted bringing in the bombs, and they were not loaded onboard the bombers. First Lieutenant Orin Snyder, the control tower officer, watched through field glasses as a C-124 landed at Lakenheath and taxied to an isolated spot. He observed a number of atomic bomb carts covered with tarpaulins rolled off the giant aircraft and moved over the hill. RAF personnel also noted the arrival of the covered transporters and one remarked: "Blimey, if I'm looking at what I think I'm looking at, there is going to be a bloody great row over this."[47] But there was not. When the atomic weapons reached Lakenheath, there were no special facilities for them, so they were stored in the conventional bomb dump. At first there were no adequate storage facilities for the bombs as the original concept of operations envisioned the bombers departing their home bases, picking up their bombs enroute (at Fort Campbell, Kentucky and Fort Hood, Texas), and then flying their missions. At least part of the reason for this involved scheme was that the Atomic Energy Commission retained strict control over all fissionable materials during the early years. Not until April 1951 did the A.E.C.

transfer control of atomic weapons to the Air Force, and not until 1956 did all SAC units store bombs at their home bases.

To load the bomb into the B-29s was no small feat. The entire aircrew was involved in the process, each man with a specific task. This required taking off one of the forward bomb-bay doors, jacking up the nose wheel until the tail touched the ground, and maneuvering the weapon on its dolly beneath the aircraft with only inches to spare, and then lowering the bomber back down over the bomb. Supposedly, only the bomb commander (the aircraft commander) and a specially-trained crewmember called the "weaponeer" were allowed to see the bomb; therefore, it was covered with canvas as was the window between the pressurized crew compartment and the forward bomb bay. This loading procedure was clumsy, inefficient, and took from forty-five minutes to an hour, and sometimes considerably longer. A second method, used when available, loaded the bombers by taxiing them over a pit where the bomb was located.

The weaponeer was responsible to connect all the circuits to the bomb and to a flight test box installed in the navigator's compartment. Before takeoff and periodically during flight, the weaponeer checked to ensure all circuits were operational. The first atomic bombs had the uranium material installed by the assembly teams and were ready for use on loading. Considering it too dangerous to fly such bombs over the U.S., the weapons were modified with a system called "inflight insertion" (IFI). The bomb was only to be armed during flight, over water, and under specific orders. One crewmember had to remove two of the high-explosive charges in the core of the bomb, insert a 65-pound uranium ball, then reinsert the high explosive. This procedure was done in the bomb bay without a parachute; therefore, there was little sadness when the IFI procedure was replaced around 1952 by an automatic procedure and a simple "idiot box." It had a "go" and a "no go" light that indicated the status of the circuits, controlled inflight insertion, and could arm and safety the bomb. It was controlled by the aircraft commander. These safety precautions were necessary as at least one bomb was dropped out of a 301st B-29 bomb bay during a loading operation. There was no explosion, but had this accident occurred a few moments earlier, the aircraft commander would have been crushed by the massive weapon. Other SAC bombers, not from the 301st, did accidently drop unarmed nuclear weapons on friendly territory, fortunately without dramatic results.[48]

This "three-month TDY" to Britain that was scheduled to end in August was extended indefinitely, much to the detriment of morale to both the men in England and their families in Louisiana. Despite trips to the Continent, the marginal living conditions at the two British bases, as well as the uncertainty of the return date, made for a bad situation. One problem the airmen encountered was clothing as the troops had brought along only summer and lightweight gear for the 90-day stay — along with the TDY extension came cold weather. Finally an aircraft arrived carrying new blue USAF uniforms.

One effort to boost spirits was a planned visit by the King and Queen of England, but when one of the Unit officers came down with polio, the royal visit was cancelled. There were numerous visitors, perhaps the most famous were Generals Doolittle and LeMay. Apparently things were a bit out of hand at the bases when the local women showed up in the showers and there was general rowdiness. Of course the stories probably improved with the telling.[49] Finally on 28 November, eleven 301st KB-29s began the homeward flight to Barksdale and on the next three succeeding days the three bomb squadrons left England. By 15 December all 301st aircraft were safely home. Support personnel departed England by boat at a later date.[50]

Memorial Service for Garrington crew who went down 17 May 50 in the Azores.
E. Eckert

During 1950 the U.S. transferred seventy standard B-29s to the British, who named the aircraft "Washington." The initial delivery was made in March involving two 301st crews and two crews from McDill AFB, Florida. Pat Shinn's crew, along with the two McDill crews, remained for a time as B-29 instructors for the RAF. Other 301st crews participated in later transfers; for example, 301st crews were involved in a 30-day TDY and the B-29 transfer to Great Britain in the summer of 1951.[51]

With the exception of this extended and difficult TDY, the Korean War had little impact on the 301st as a unit. A few crews and individuals from the 301st saw combat (and some were killed), but this was at most 20 percent, seven to twelve crews. As with the rest of the USAF, personnel were levied from the Unit and sent off to the war. In the first half of 1951, for example, the 301st sent six complete bombardment crews and key personnel from four refueling crews to Korea. Their replacements were reservists from light bombardment units who required extensive retraining.

Under the SAC system, there were three stages of qualification: Ready, Lead, and Select Crews. The Select Crews were at the top of the ladder with an assigned target, Lead Crews were fully qualified and could be assigned a target as necessary, while Ready Crews were at the bottom of the ladder. Naturally SAC did not want to reduce its effectiveness and readiness by sending its best people to the war. There was also the possible compromise of war plans and atomic secrets if any of these individuals were captured.[52]

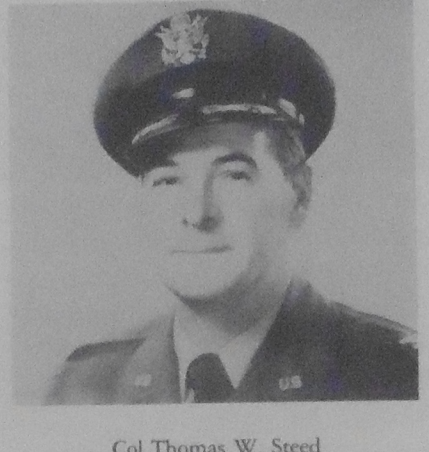
Beginning in March 1951 a number of reservists joined the 301st, many were from Birmingham, Alabama, and Randolph AFB, Texas. This caused some problems as these officers were relatively high in rank, but short on flying experience, and at least some lacked motivation. A number of these reservists did not want to fly, and some of them met Flying Evaluation Boards as a result. In fairness to these men, it must be noted they were

involuntarily recalled from inactive reserve units and had every reason to be unhappy. When they mustered out after World War II and signed onto the inactive reserves, it was with the understanding that they were to be available for a major emergency, something akin to World War III, and were to be called up only just before the women and children. They had no drills or training and drew no pay. Nevertheless, they were called up and some went to Korea, while a number of active reservists and many regulars stayed stateside to continue their peacetime activities. It took the 301st about six months to integrate these people into the Unit, obviously slowing things down as the training took place. In the summer of 1952 the reservists began to depart, causing personnel shortages.[53]

SAC was very concerned about morale and went to considerable lengths to enhance it. In December 1949 SAC began a system of temporary or "spot" promotions to the next higher grade for First Lieutenants and Captains, and in February 1951 for airmen. Twelve 301sters received spot captaincies during the initial promotions in December, while others became spot majors. The system was later extended for both officer and noncommissioned-officer grades. Competition was extremely keen as there were only enough spots for 15 percent of SAC's crews. A crew had to fulfill certain requirements, be recommended by both the squadron and wing commanders, and be recommended by a spot promotion board, after which SAC headquarters made the final determination. Only crewmembers on Select Crews were considered, and thus tanker crews were ineligible. Clearly the rest of the USAF did not like SAC's system and opinion among 301sters remains about evenly divided regarding the impact of the system. Some believe it was a good idea that motivated the bomber crews — a smart move that made SAC great. It enhanced discipline and certainly kept pressure on the crews, especially the bombing team: bombardiers, navigators, and radar operators. Others admit the system led to some fudging, if not outright cheating. Critics argue that favoritism and politics played a role in determining who won the spots; in their view it divided people and cheapened rank. Luck played a role, but most of all, SAC demanded a bombing team that could consistently put their weapons squarely on target.[54]

There were other events during 1951 that deserve mention. On 31 March a B-29 crashed-landed at Barksdale after part of the crew bailed out. This bomber had just come out of periodic maintenance and was being test flown by Captain John Minnich (353d), who ran into a host of problems. On the climb out he lost the number one engine, which caught fire during the feathering operation. To make matters worse, the elevator trim tabs were reversed, the nose wheel would not come down, and the nose-wheel hatch was locked from the outside, which made manual extension impossible. Minnich permitted seven crewmembers to bailout, and then he, the copilot, and engineer made a successful, nose gear-up landing. As a result of this near disaster, the check list was changed. This was the first major accident in the 353d since it was reformed after the war.

Other events were more positive. In late May Captain Tommy DiSalvo (32d), aircraft commander of a Select Crew, with an additional flight engineer and navigator, flew forty-six hours and ten minutes a distance of 9,438 miles. The feat, an effort by the crew to complete their quarterly requirements on one flight, required three air-to-air refuelings and the transfer of over fifteen thousand gallons of gas. This was considered to be a record, at least unofficial, for a B-29.[55] In August Captain Daniel Hurlburt, Jr. (353d) and crew represented the 301st in SAC's 1951 Crew Competition and brought honor to the Unit by placing second in navigation and third in the overall bombing and navigation standings. Earlier in the year, Hurlburt and his crew attended the first SAC Combat Crew Standardization School at McDill and were selected as the outstanding B-29 crew from a field of eight.[56] Finally in late September twelve aircraft and crews from the 352d arrived at Lakenheath for a 90-day TDY. They returned on 20 December 1951.[57]

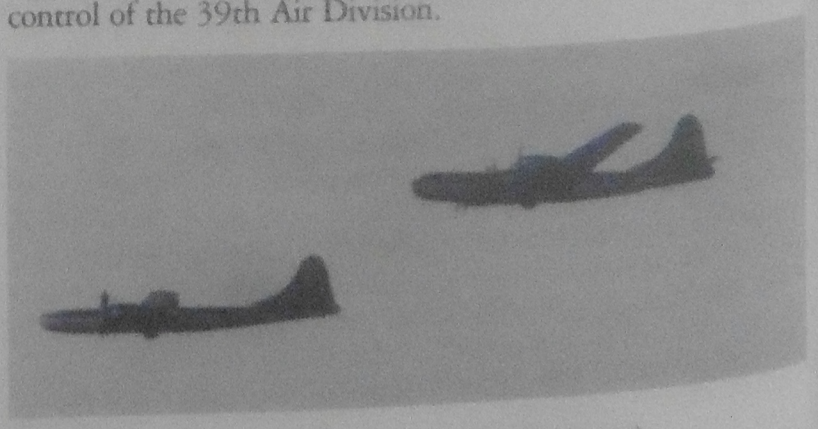


Col Thomas W. Steed
Mar 50-10 Feb 51 (R. Fentress)

Col Chester C. Cox
15 Dec 50-Mar 51 (C. Cox)

In 1952 the 301st continued to support atomic operations. A number of aircraft and crews had participated in "classified maneuvers" between 1949 and 1952. In April 1952, for example, twelve 301st crews overflew an atomic explosion for familiarization. Some were disappointed by the blasts and commented that motion picture footage of the explosions was much more impressive than the actual event. More satisfying was the Unit's number one ranking in the SAC Wing Ratings during February and March 1952.[58]

Earlier that same year, five crews from the air-refueling squadron took part in a special operation in Korea, codenamed operation HIGHTIDE. This was a combat test of aerial refueling of fighters using a different and simpler refueling system. Five 301st KB-29s went to Tarrant Rushton Airfield, Dorset, England, in February 1952, where they were fitted with probe and drogue refueling equipment. In this procedure, later used by USAF tactical aircraft and USN aircraft, the tanker extended a 40 to 50-foot fuel hose, with a pan or basket-shaped cone at the end, out from the tanker's tail. The fighters, RAF Gloucester Meteors in the British tests and in Korea F-84s, with refueling probes (nozzles) in their wing tanks, made the hook up. All-in-all, this was a much simpler system than the crossover method. To this day, SAC, Tactical Air Command, and the Navy continue to disagree as to which is the better system, the later boom system or the probe and drogue system. The five crews returned to Barksdale briefly in March before departing for Yokota Air Base, Japan, and arriving there on 26 March. The aircraft and crews became part of Detachment Four commanded by Major Donald Goss (301st), under the administrative and logistical control of the 98th Bomb Wing, and the operational control of the 39th Air Division.



301st B-29 and KB-29 Refueling (M. Cameron)

The 301st aircrews and aircraft supplemented resources already in the theater, giving the Detachment nine KB-29s. Operation HIGHTIDE was divided into three phases: the first from mid-April through mid-May practiced air-to-air refueling, the second from late May through early July provided a combat test, and the third ending in September consisted of two special missions. The tanker crews flew their first mission on 11 April 1952. The fighters in the first two phases (116th Fighter Bomber Group based at Misawa) had their tanks topped off, the transfer requiring about three to four minutes and perhaps involving seven hundred gallons. After overcoming problems of inadequate operational training, Detachment Four flew forty-one refueling sorties in Phase I and logged 261 hours of flying time. During the four combat missions in Phase II, the tankers flew fifty-one sorties, transferred over ninety-five thousand gallons of fuel to 174 fighters, and flew 343 hours. The third phase was flown by fighters of the 31st Fighter Escort Wing and consisted of two simulated missions, one air defense and one strike. In September the five crews returned to Barksdale without their aircraft.[59] Thus the 301st, or at least some of its aircraft and aircrews, was involved in another important pioneering effort.

That same month the 301st returned to Britain for a three-month TDY. As the Unit had earned a less-than-exemplary reputation during its 1950 stay in England, shortly after their arrival, General John McConnell, Commander of Seventh Air Force, called in the Unit's Commander, Colonel Horace Wade, and read him the "riot act"; in short, the shenanigans of the last trip were unacceptable. Wade got the word across to the troops in small discrete meetings, but in no uncertain terms. There were no problems.[60]

Al Cotton on way to England 1950 KB-29 (E. Eckert)

Meanwhile, the 353d Bomb Squadron and 301st Air Refueling Squadron visited North Africa for fifteen days, 14 June through 2 July 1952, staging out of Sidi Slimane, French Morocco. While in North Africa a busload of about thirty 301st crewmembers visited a women's prison open to the public and housing convicts ranging from shoplifters to murderers. When the prisoners saw the visitors, about fifty or so screamed "Americans" and rushed forward. The tiny women grabbed the shocked airmen with their hands that were stained by disinfectant, terrifying the men, who then took to their heels and ran in all directions. It was quite a scene considering most of them were combat veterans.[61]

During the summer of 1952 the 301st lost a KB-29. On 25 August Captain Howard Evans attempted an engine-out landing at Barksdale, drifted left, and elected to go around. As he added power, the aircraft cocked to one side. Flying about ten feet from the ground, the tanker approached a tree line. As the pilot attempted to pull up over it, the aircraft flipped over onto its back and crashed. All eight onboard died.[62]

B-29 and KB-29 preparing to refuel (M. Cameron)

The 301st returned to England in December 1952 for a 90-day TDY at three British airfields, Upper Heyford, Brize Norton, and Lakenheath. This was the time of the "Killer Fog" that blanketed England and killed thousands, so it was little wonder 301st aircraft were scattered across the map. The 32d bombers departed Barksdale on 3 December along with fifteen tankers. The tankers were to remain in Bermuda to support the rest of the Wing as it moved to England; the standard B-29s were to land and refuel in Bermuda, while the receiver aircraft were to refuel in the air and fly nonstop to England. But only one bomber made it all the way, another landed in the Azores, and the rest recovered in Bermuda. The next day eight bombers left Bermuda for England, but due to the bad weather SAC Headquarters diverted them into Sidi Slimane, where they remained until 11 December. SAC also delayed the departure of the other two squadrons from Barksdale until 10 and 11 December. One crew landed in France and was grounded by the weather for a week. Then, when attempting to rejoin the Unit, they landed at the wrong base in Britain about twelve miles away from the 301st. Perhaps understandably, but unnecessarily, Colonel Wade had the crew stay put and sent another crew to the base by bus to retrieve the bomber.

The 301st was hindered by the continued bad weather, which extended into January 1953, and a flu epidemic that more than filled the hospital at Brize Norton in December. Despite these problems, the Unit acquitted itself well on a variety of levels. For example, during this winter Holland experienced severe flooding, and the 301st dropped sandbags to aid the Dutch — a feat remembered by the people years later. The 352d brought more honors to the 301st by winning an RAF Blind Bombing Competition held in mid-December. The 352d's winning crews were led by Lieutenant Colonel Eugene Schlegel, Major Kenneth Krig, Major Richard McLaughlin, and Captain John Lewis. The 32d placed tenth, one notch above the 353d. Between 16 and 18 January five 301st crews, one from the 352d, and two each from the 32d and 353d, performed well in an escape and evasion exercise. The 301st crewmembers were part of 144 "evaders" pitted against approximately one thousand RAF, USAF, and USN searchers. The 301st crews had a slightly higher success rate than the RAF (36 versus 31 percent). More significant, half the Unit's crewmembers who had completed survival training were successful, as compared with the one-third success rate of those